The Third White Paper:
Are Mutual Fund Fees Reasonable?

September 1998 Update

A Reuters Company

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1998 Update

Table of Contents **Page**

Tables and Charts **Page**

Appendices

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1998 Update

Preface

Now that the publishing arm of Lipper Analytical Services, Inc. has become part of the Reuters family, we are able to focus more extensively and examine a larger amount of data on non-SEC-registered funds. In general, SEC-registered funds have lower expenses than those operating outside of the United States. Various other forms of collective investments, such as hedge funds and wrap accounts that use funds, have materially higher expenses.

Last fall, we undertook an analysis to determine whether mutual fund fees were reasonable, compared to various alternative investments, such as hedge funds and wrap accounts. This question is frequently asked of us by fund boards and other participants in the mutual fund business. Since our initial analysis last year, the number of funds in the marketplace increased 13% as 1,400 new funds have emerged. More impressive, total net assets have increased nearly 26%, from $3.2 trillion to $4.0 trillion, in a year when overall average performance of all funds was 17.62%. Hence, we felt we should repeat the study this year and see if our results continue to prevail.

The results this year are much the same as last year. Using data through 1996, we previously identified four trends in the mutual fund business that have emerged since 1986, each of which continued through 1997: 1) world debt and world equity funds have captured an increasing share of total assets; 2) the number of back-end load funds has quintupled; 3) money market and fixed income assets have declined as a percent of the total; and 4) fiscal 1997 expense ratios for funds that have existed since 1986 continue to be lower than their 1986 levels.

The combination of the diligence of most boards of directors/trustees, the publication of total expense ratios in the *Wall Street Journal, Barrons,* and other leading papers, and concerns of various financial intermediaries all lead to capturing any demonstrable economies of scale.

The bottom line is that mutual funds represent a real value to the investment public in terms of expenses.

A. Michael Lipper, CFA,
Chairman

Note: *Other white papers available for review include *Selling the Future: Concerns About the Misuse of Mutual Fund Ratings* and *Acquisition of Mutual Fund Management Companies: The Wrong and Right Ways—You and Acquisitions.*

Outline of Analyses

Most sound analyses use different bases to reach the same conclusions. However, in our world, the most powerful and insightful governor of the marketplace is competition. Thus, we first looked at external competitors to the mutual fund business both in and outside of the United States. Second, we looked at the competition within the mutual fund management companies for scarce resources, e.g., talent. Third, we looked at competition among funds.

Summary of Analyses

1. While expenses appear to be rising in aggregate, these apparently higher expenses are due to the large number of new high-expense funds, the inclusion of 12b-1 sales and service charges (often in place of front-end sales loads) and the shift in shareholder assets from Money Market funds to World Equity and World Debt funds. When properly adjusted, management fees are actually declining for older, typically larger, funds.

2. Based on pricing comparisons with alternative investment products, the total cost of mutual fund service is less than that of mutual fund wrap accounts, individual securities wrap accounts, hedge funds, certificates of deposit, and funds registered outside of the U.S.

3. In general, fund management company profit margins are not rising despite asset growth. Margins are below their peak levels. The costs of competition for talent, as well as increased marketing and service expenses, are tempering profitability.

4. The profitability of mutual fund management companies is reasonable compared to other industries that also require high proprietary knowledge and service orientation.

5. While there has been tremendous asset growth in the fund business, the average fund size has not grown significantly, certainly not to an extent that economies of scale would result.

6. Older funds that have experienced significant growth in average fund size have passed along economies of scale to their shareholders through reduced expense ratios.

Alternative Investments

As investment analysts, we have great respect for markets' price-setting mechanisms. If buyers regard price as too high, then no transactions occur. Markets validate attractive prices with increasing volume. The tremendous amount of assets that have flowed into open-end funds supports the idea that the market considers fund fees reasonable. Mutual fund average monthly sales are now nearly twice as high as they were only four years ago. Are fund fees reasonable? Fund shareholders seem to be responding "Yes" with their money. Included in a discussion about the reasonableness of fund fees, we believe there is value in examining the cost that customers bear in alternative investment vehicles.

Mutual Fund Wrap Accounts

The continuing popularity of mutual fund wrap accounts, which add 0.50% to 1.50% in annual fees on top of fund fees (an average of 1.25%), seems to contradict the idea that fund fees are too high. At the end of 1997, there was an estimated $55.0 billion in mutual fund wrap accounts, an increase of 52% over 1996, and an increase of 164% over 1995. The marketplace would not support such a product with its higher fees if the original product, individual mutual funds, was viewed as overpriced.

Individual Security Wrap Accounts

Individual security wrap accounts typically have annual fees between 1.5% and 3.0%. Put in perspective, these fees are often more than twice as high as the median fee for non-Money Market open-end funds (1.20%).

Hedge Funds

Hedge funds generally charge 1%, plus up to 20% of gains. Operators of hedge funds, on the basis of their higher fees, have the ability to hire highly talented portfolio managers and analysts away from the mutual fund business. In order to remain competitive, many mutual fund organizations have been compelled to raise their overall levels of compensation, particularly for high visibility managers.

Certificates of Deposit

Bank certificates of deposit (CDs) are another alternative to mutual funds. The spread between the rate a CD investor receives and the rate at which a bank lends is in effect the "fee" an investor pays for the CD. For many banks, the long-term CD-to-prime-rate spread is approximately 3%, again well over twice as high as fund fees. There are certainly very significant differences between bank CDs and managed accounts, including deposit insurance, banks' principal risk, and regulatory capital requirements. However, both funds and banks are active in a primary market (securities for the former and loans for the latter), and both deliver a return to their customers, after paying the cost of their operations.

Funds Registered Outside of the U.S.

While not exactly comparable to U.S. funds due to higher marketing expenses, the average Canadian fund's total operating expenses are 2.40%, compared to a median of 1.20% for U.S. funds. Total expense ratios of European-domiciled funds are difficult to collect on a consistent basis. However, compared with equity funds of 21 European countries, the U.S. equity fund average management fee (0.75%) is lower than those in 19 countries.

Management Company Profit Margins; ROE Below Peak Levels

Advisory fees have been the subject of a number of legal cases. In one of the two landmark Gartenberg cases, the court suggested that the board had an obligation to determine that economies of scale were being shared with fund investors.

One way to discern whether advisors are benefitting from economies of scale is to analyze fund companies' profit margins. In a period of increasing volume, analysts usually expect to see profit margins expand. Given that expectation, we find it remarkable that over half of the publicly traded mutual fund management companies currently have pre-tax, after-marketing profit margins *below* their peaks (see Table 1).

	Premarketing Margin			After-Marketing Margin			Return on Average Stockholder Equity		
	1997 %	Previous* Peak Year	Peak Year Margin %	1997 %	Previous Peak Year	Peak Year Margin %	1997 %	Previous Peak Year	Peak Year ROE %
Alliance Capital Mgt	44.0	1996	41.3	29.9	1996	27.3	29.5	1991	48.0
Eaton Vance Corp	30.3	1990	44.8	48.8	1987	59.8	17.8	1987	31.4
Franklin Resources Inc	55.2	1987	70.8	44.9	1987	68.2	26.7	1986	85.4
John Nuveen Co	48.9	1996	46.2	46.1	1991	47.6	27.2	1993	29.0
Pioneer Group Inc	NR[1]	1986	77.7	27.8	1986	68.1	16.9	1987	32.0
T. Rowe Price Associates, Inc	42.3	1996	40.2	33.1	1995	30.7	34.7	1986	43.9
Marsh McLennan Cos (Putnam)	NR	NR	NR	24.6	1988	34.9	15.7	1987	42.0
Phoenix Duff & Phelps Corp	20.7	1994	34.8	16.9	1993	37.9	10.0	1993	*184.7
Averages	**40.2**		**50.8**	**34.0**		**46.8**	**22.3**		**44.5**
Affiliated Managers Group	NR	NR	NR	23.7	1996	14.2	N/A	N/A	N/A
American Express	NR	NR	NR	63.2	1995	68.2	22.0	N/A	N/A
AMVESCAP	NR	NR	NR	35.1	1996	27.2	258.0*	N/A	N/A
Mellon	NR	NR	NR	25.8	1996	24.9	19.8	N/A	N/A
Federated	37.9	1995	31.8	24.1	1995	20.4	N/M	N/A	N/A
Liberty	21.1	1995	19.0	28.0	1995	25.5	11.5	N/A	N/A
NVEST	NR	NR	NR	13.2	1996	8.9	24.2	N/A	N/A
PIMCO	26.8	1996	25.8	25.4	1996	25.6	17.5	N/A	N/A
Waddell & Reed	68.6	1996	71.7	74.9	1996	77.0	N/M	N/A	N/A
Averages	**38.6**		**37.1**	**34.8**		**32.4**	**19.0**		

[1] Pioneer Changed reporting detail.

* Excluded from average as outliers. AMVESCAP results reflect the merger with AIM Management Group Inc., completed on 2/28/97. Results for Phoenix in 1993 occurred under its former structure as a subsidiary of Phoenix Home Life.

N/A = Not Available

NR = Not Reported

N/M = Not Meaningful

Table 1 Profit Margins and Average Return on Equity: Public Fund Advisors

Upon closely examining profitability data for those advisors that report separate fund business financial data, one discovers that the average of each advisor's peak margin is well above the average of 1997 levels (see Chart 1). Additionally, the five-year average return on equity (ROE) for public fund management companies tracked in Lipper Analytical's *Advisor Profitability Study* was 26.1%, again above the current (1997) level but still well below the peak (Chart 1a).

The ROE for the average mutual fund management company is in line with profitability measures for software manufacturers (25.0%) and pharmaceutical companies (27.9%). We believe that these two types of entrepreneurial businesses have some important similarities to the fund management business. These businesses are knowledge intensive, have low marginal cost of production, high distribution costs, and high continuing service responsibilities. We hasten to add that an ROE analysis should be limited to public companies; private companies and partnerships may follow different practices, which would result in less meaningful ROE comparisons.

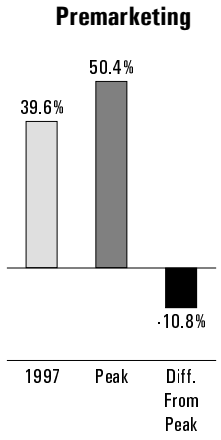
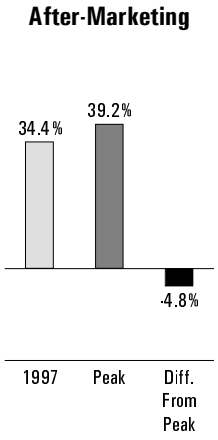


Chart 1 Average Advisory Margins, 1997 and Peak Year



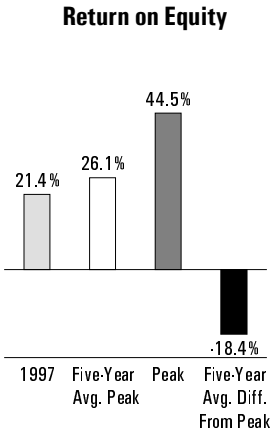


Chart 1a Average ROE, 1997 and Peak Year

Management Company Purchases and Sales

All management companies have the option of growing their assets through starting new funds, growing old funds, or buying another sponsor's funds. If growing fund assets internally through new funds has become more expensive, then we would expect to see rising demand and rising valuations for management company acquisitions.

We believe that, even for those management companies already in the fund business, new funds are expensive to start and grow. Therefore, we interpret the historically high valuations paid to acquire fund management companies by fund groups already in the business, e.g., Mellon's purchase of Founder's and Bank of America's purchase of Robertson Stephens, as a confirmation that the knowledgeable buyer finds it more attractive to buy assets residing in existing funds than to launch new funds, even at record valuation levels for an inter-industry purchase.

Internal Competition

With low barriers to entry, the fund business is highly competitive. Funds compete both in terms of performance and services provided. Both of these benefits are paid for by the shareholders. With the exception of front-end sales charges, fund operating expenses are deducted from net asset value before performance is measured. Fund expenses are required to be disclosed to investors and these operating expenses are quite visible in the front of the prospectus as well as in leading papers such as the *Wall Street Journal, Barrons,* etc. Despite the intense competition in the fund marketplace and the high visibility of fund expenses, there exists considerable variation in individual mutual fund expenses, even between funds with the same investment objective. For many investment objectives, the difference between the medians for funds in the highest expense quintile (top 20%) and the lowest expense quintile (bottom 20%) is approximately 150 basis points. In an intensely competitive marketplace with visible fees, any fund complex with higher prices must deliver superior perceived value in order to successfully increase its shareholder base. Otherwise, the fund complex will lose fund shareholders. We believe that competitive marketplace dynamics will continue to exert pressure on higher expense funds to deliver superior value (including returns and/or services) or risk falling into a consistent pattern of market share loss and redemptions.

Trends in Mutual Fund Expenses

There has been considerable discussion over the last three years about historical trends in fund expenses. Much of the discussion has centered around the observation that the asset-weighted expense ratio for all funds is higher than it was in 1986. The conclusion reached by some commentators is that fund companies are being "greedy" by raising fees during a period of record inflow into funds. We believe that both the initial observation and the resulting conclusion are naive from a rigorous analytical standpoint.

The misguided aforementioned conclusion results from a lack of understanding of two vital concepts: the dramatic changes in the fund universe over the past 11 years and the nature of economies of scale in the fund business.

The universe of funds has changed significantly over the past 11 years. Analysts must take into account these changes in order to comment thoughtfully on the trend in expenses. The four biggest changes in the fund universe from 1986 to 1997 have been:

1. A tremendous increase in the number of new funds (see Chart 2).

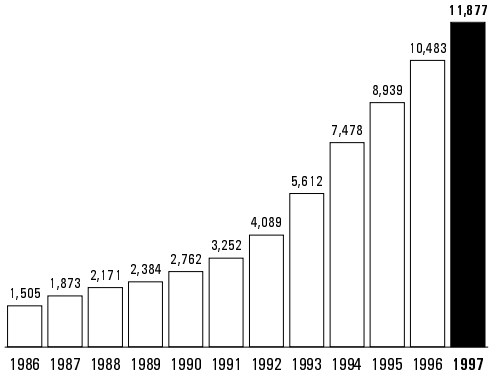


Chart 2 Total Number of Retail and Institutional Open-End Mutual Funds (Year-End)

2. World Equity and World Debt funds are more expensive for fund management companies in terms of providing both management and custodian services than are domestic funds. There has been a disproportionate increase in the number of new, high-expense World Equity funds (see Charts 3 and 3a).

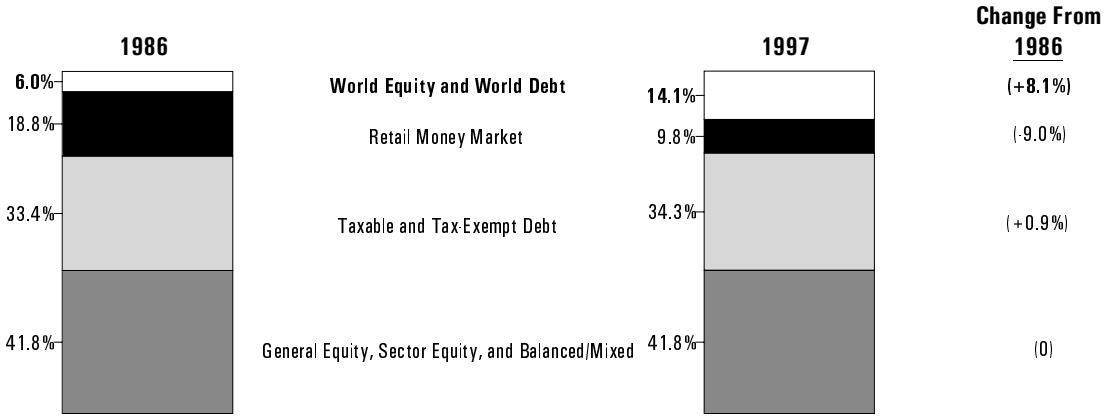


Chart 3 **Proportion of Retail Open-End Funds in Existence at the End of 1986 (left chart) and at the End of 1997 (right chart) in Four Major Investment Objective Categories. ( ) denotes the absolute increase/decrease (+/-) since 1986.**

Note the increasing proportion of World Equity and World Debt funds each year from 1987 through 1997. An asterisk highlights these objectives in each chart.

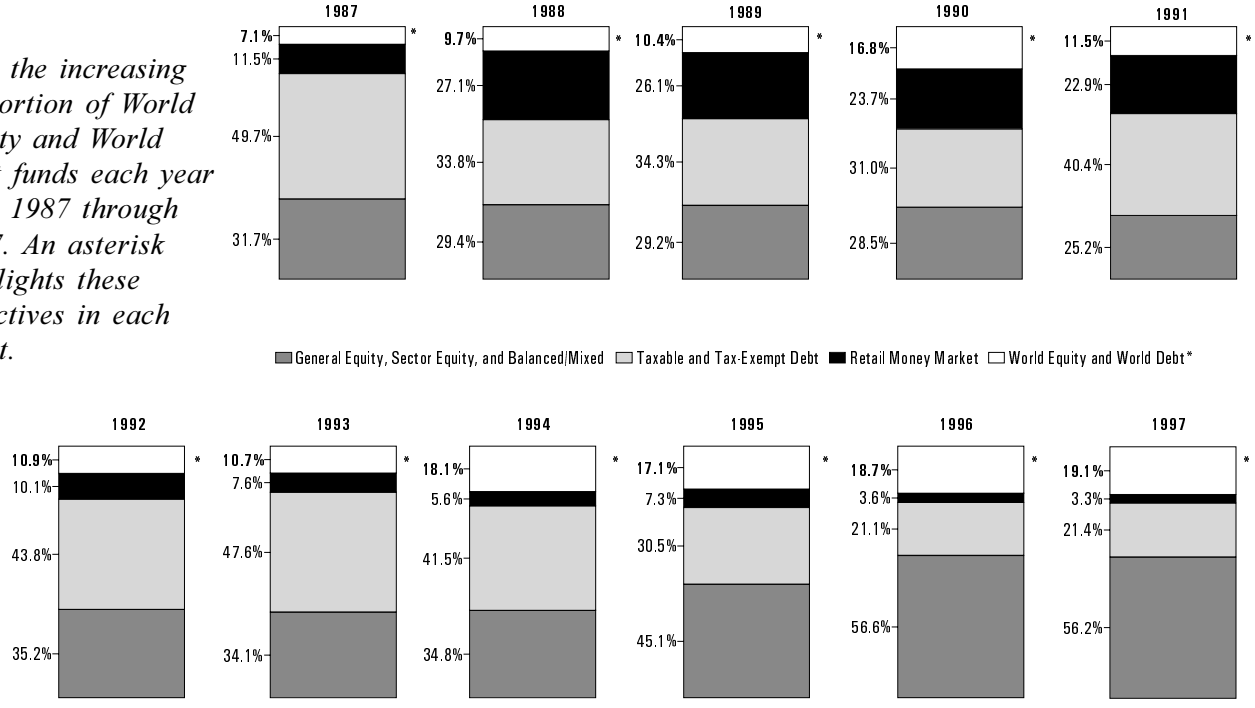


Chart 3a **Proportion of New Open-End Funds With Initial Public Offering Dates in Each of the Eleven Years Shown Above in Four Major Investment Objective Categories**

3. Over the last 11 years there has been a massive shift in the number of funds with front-end sales charges to ones with deferred sales charges (back-end loads). Fund investors pay for intermediary advice through 12b-1 charges paid by the fund (see Charts 4 and 4a).

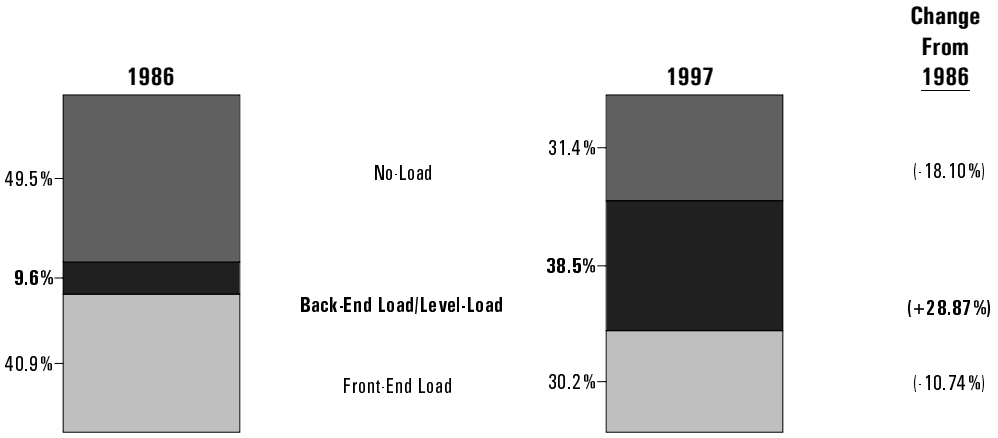


Chart 4 **Proportion of Retail Open-End Funds in Existence at the End of 1986 (left chart) and at the End of 1997 (right chart) in Three Major Pricing Structures. ( ) denotes the absolute increase/decrease (+/-) since 1986.**

Note the increasing proportion of deferred load products (back-end load and level-load) each year from 1987 to 1997. An asterisk highlights this pricing structure in each chart.

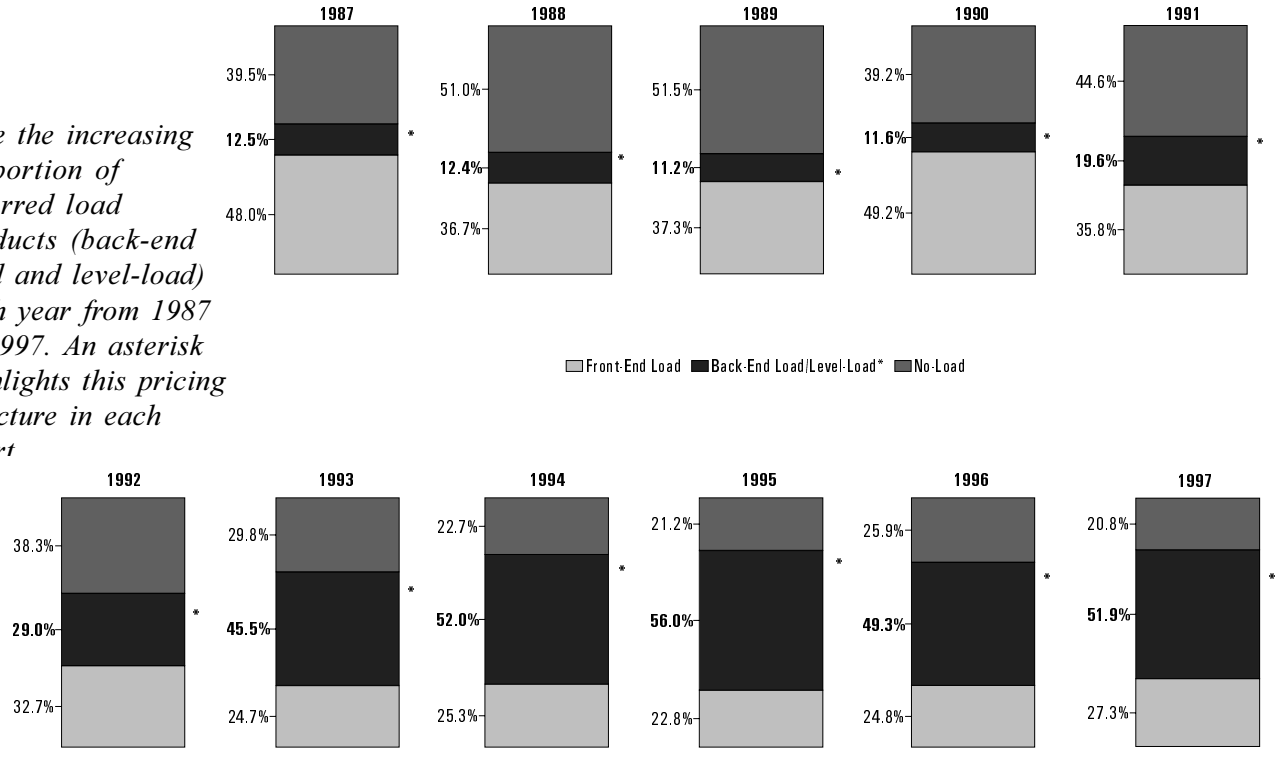


Chart 4a **Proportion of New Open-End Funds With Initial Public Offering Dates in Each of the Eleven Years Shown Above in Three Major Pricing Structures**

4. Eleven years ago low-expense Money Market funds held almost one-third of the fund assets, with Equity funds holding below a third. Today, Equity funds with their higher fees (more expensive managers and analysts) represent nearly two-thirds of all fund assets, and Money Market funds represent less than a quarter of the total (see Chart 5).

Note the substantial shift of assets into Equity assets; both Debt and Money Market assets decreased proportionally from 1986.

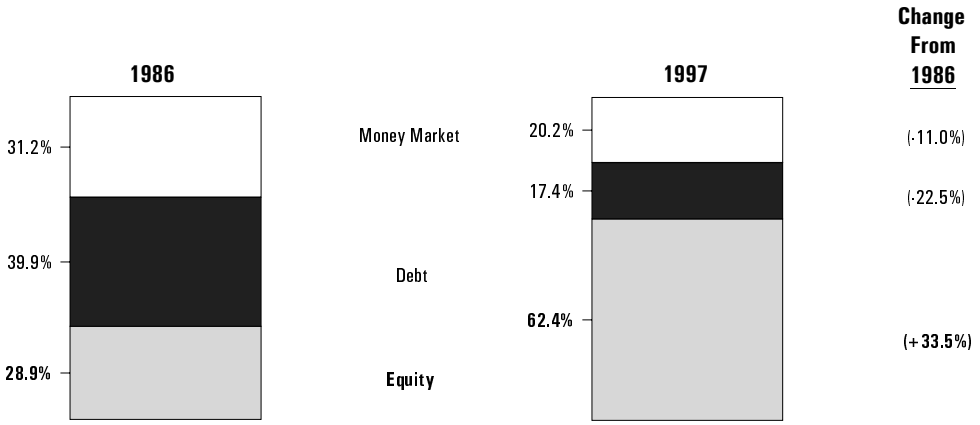


Chart 5 **Proportion of Retail Open-End Fund Assets at the End of 1986 (left chart) and at the End of 1997 (right chart) in Three Major Asset Classes. ( ) denotes the absolute increase/decrease (+/-) since 1986.**

A Fresh Analytical Approach

Based on these major changes, we recommend that three analytical adjustments be made to the historical expense trend analysis. First, freeze the universe of funds in the study to those in existence for the whole 11-year observation period. Otherwise, any conclusion will be distorted by the growth of the newer, more expensive fund types, e.g., World Equity funds.

Second, deduct the 12b-1 plan payments that have been added to many funds concurrent with a reduction of front-end sales charges. Otherwise, there will be an apparent rise in fund expenses, when the actual effect to the investor of a 3% to 4% drop in the sales charge (from 8.5% to 4.0%-5.75%) is a lower total cost of ownership. The average front-end load fund, which has lowered its initial sales charge by 300 to 400 basis points, charges a 12b-1 plan payment of 26.7 basis points. Thus, an investor benefits from the combination of lower front-end sales charges and the initiation of 12b-1 plan payments for the first nine to 13 years. Since investors are holding their funds for a shorter period (three to five years), they do realize a benefit.

Third, one should use median expense ratios, not total industry asset-weighted averages, when looking at all funds, or limit dollar-weighted averages to comparisons within investment objectives. Otherwise, investors' significant and voluntary shift from Money Market funds and other Debt funds into stock funds will incorrectly portray an apparent rise in fund expenses.

New Funds Versus Seasoned Funds

When these three analytical adjustments are made, the median expense ratio for funds that began in 1986 or before is *not* up, but down. Driving up median fund expense ratios are newer, higher-expense funds. In a nutshell, most older funds are not increasing their expenses; in fact they are lowering them, and most newer funds have higher expenses (see Chart 6).

Note the decrease in total expenses excluding 12b-1 plan payments for funds that have been in existence since 1986.

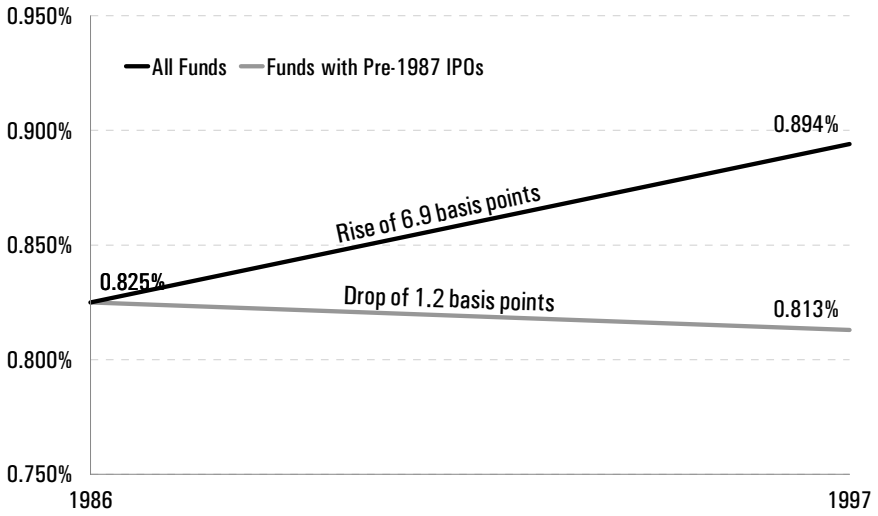


Chart 6 **Median Total Expense Ratios Excluding 12b-1 Plan Payments From 1986 to 1997 for Retail Open-End Funds and All Retail Open-End Funds in Existence Before 1987 (Interim years between 1986 and 1997 were *not* plotted)**

We believe that the primary driver of higher expenses of newer funds is higher management fees. In order to test this belief, we studied 20 of the major investment objectives (all of the objectives with at least $25 billion in assets as of June 30, 1998). We compared each objectives' 1997 asset-weighted management fees for funds that were at least 11 years old with their newer "cohorts" based on initial year of operation, including new share classes of only existing portfolios from subsequent two-year periods (1987-88, 1989-90, etc.). Out of 112 comparisons, the post-1986 cohorts had higher management fees than the old funds in 85 cases, or 76% of the observations. Please see Appendix I for a Management Fee Study by Major Investment Objectives.

Reasonable Expectations for Economies of Scale

A general misunderstanding about the nature of economies of scale begins with the expectation that the tremendous growth in the asset size of the fund business in aggregate should translate into a reduction in the average overall expense ratio. This expectation presumes a business economy of scale, which does not exist. The fund business does not have any economies of scale; individual funds do. One fund company's expenses do not decrease (and may, in fact, go up) as a result of its competitors' assets rising.

We also do not believe that there should exist economies of scale at the fund management company level. If a successful manager of state municipal funds raises assets in domestic equity funds, we would not expect to see any downward pressure of those increased equity assets on the municipal funds' expense ratios.

The only economies of scale that one can expect are at the individual fund level. We believe that these economies come from two sources: 1) a decrease in the level of some of the other operating costs (for example, custodian, directors', legal, and registration fees) as a percent of fund assets; 2) spreading the cost of investment management over more assets. However, we hasten to add that this second economy of scale is not linear. As the fund gets bigger, the fund company frequently will add more analysts and portfolio managers to manage the larger asset base.

If we return to the expectation of a reduction in the average fund expense ratio as aggregate fund business assets increase, this expectation would only be reasonable if the average fund size had increased significantly. However, there has not been such an increase. Over the past 11 years, despite a near six-fold increase in total fund assets, the average fund portfolio size (for combined classes of shares) has only increased from $328.0 million to $561.2 million. If an individual fund increased its assets over 11 years by this amount, one would expect to see little, if any benefit from economies of scale prompting a lower expense ratio.

Older Funds Have Delivered Economies of Scale

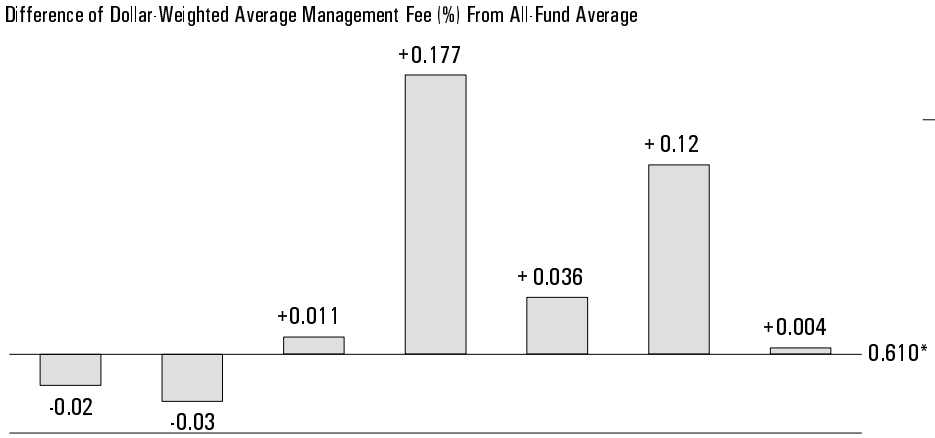
If we examine the funds that commenced operations in 1986 or before we do witness some examples of economies of scale. One reason for this may be that these older funds have grown significantly in size over the 11-year period. In 1986, these funds' average size was $328.0 million; the average size had increased to $1.456 billion in 1997. Thus, we do have evidence of some economies of scale passed through to fund shareholders as individual fund assets grow.

Will Fund Shareholders Benefit Similarly With Newer Funds?

We see some reason to believe that some funds' total expenses will decline in the future. In Appendix II, we have included an analysis of dollar-weighted average total expense ratios of the largest investment objectives grouped by initial year of operation. Two trends are obvious: 1) on average, the newer funds are smaller; 2) on average, the newer funds have higher expenses. If the newer funds are successful in raising assets, then one could expect some future reduction in expense ratios similar to those of the older funds.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(Growth Funds)



Growth Funds Total Net Assets ($ Millions) 6/30/98

$679,200.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	157	20	23	65	158	214	28
Average ANA***	1995.29	2702.86	1444.31	571.66	930.32	570.89	826.1

*Dollar-weighted average management fee for all growth funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all growth funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

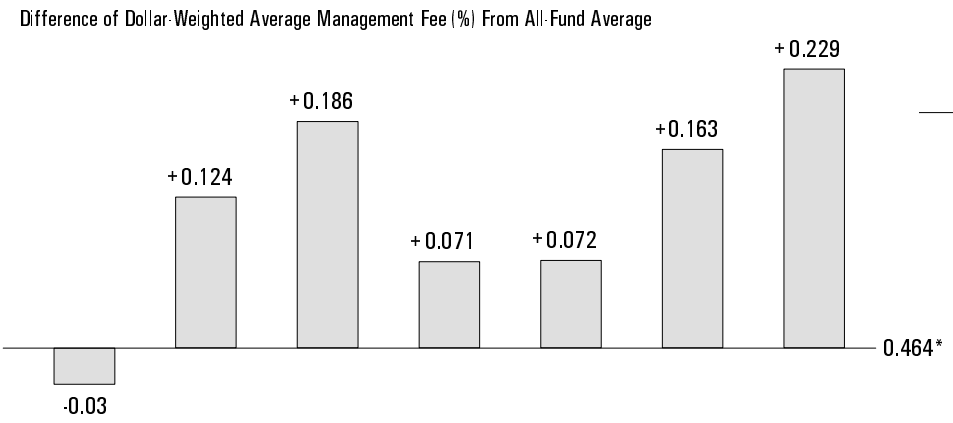
Chart 1

- Growth funds maintain a fairly constant dollar-weighted average management fee across the periods shown above; five of the seven periods' dollar-weighted average management fees are within four basis points of the all-growth-fund average.

- Three-quarters of growth funds with 1997 IPOs waived at least a portion of their management fees, explaining in part why this period's dollar-weighted average management fee is less than those of the prior four periods.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(Growth and Income Funds)



Growth and Income Funds Total Net Assets ($ Millions) 6/30/98

$607,200.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	110	26	14	47	116	166	16
Average ANA***	2829.29	1034.76	550.07	1175.39	895.54	917.22	56.56

*Dollar-weighted average management fee for all growth and income funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all growth and income funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

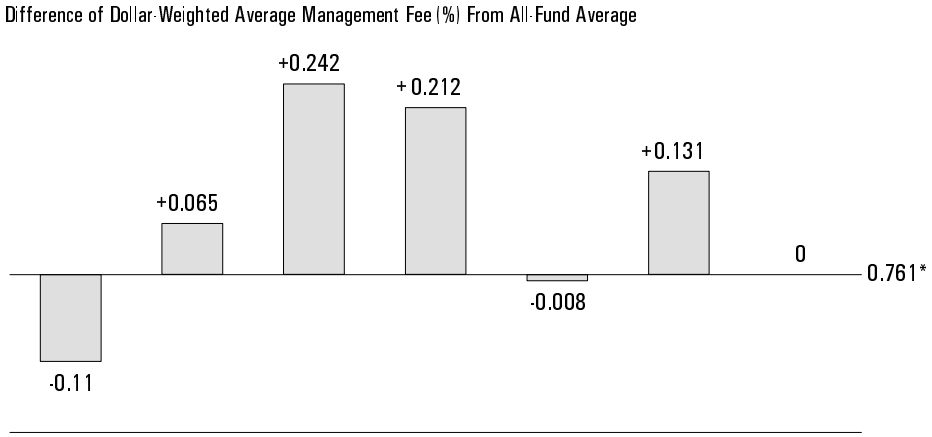
Chart 2

- All growth and income funds, regardless of IPO date, have dollar-weighted average management fees higher than the pre-1987 dollar-weighted average.

- Growth and income funds debuting in 1997, with a dollar-weighted average management fee 22.9 basis points higher than the all-growth-and-income-fund average, are by far the smallest in terms of assets, with an average ANA just 10.28% as large as the next most expensive period, '89/'90.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(International Funds)



International Funds
Total Net Assets
($ Millions)
6/30/98

$178,700.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	26	8	11	35	97	114	16
Average ANA***	2399.17	734.85	575.66	530.55	356.92	321.5	155.68

*Dollar-weighted average management fee for all international funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all international funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

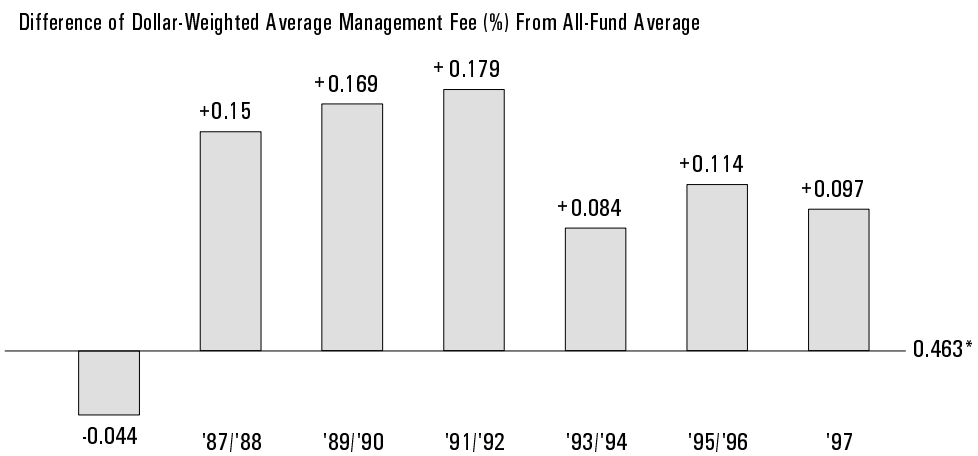
Chart 3

- Dollar-weighted average management fees remained above the average until '93/94, when the introduction of the second largest number of funds dipped below the international fund dollar-weighted average.

- Smaller fund IPOs in 1997 did not drive the dollar-weighted average management fee higher, rather these funds placed exactly at the median of dollar-weighted average management fees for all international funds

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(Balanced Funds)



Balanced Funds Total Net Assets ($ Millions) 6/30/98

$156,900.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	36	16	8	30	93	82	7
Average ANA***	2381.81	531.34	198.71	354.41	419.18	195.84	577.1

*Dollar-weighted average management fee for all balanced funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all balanced funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

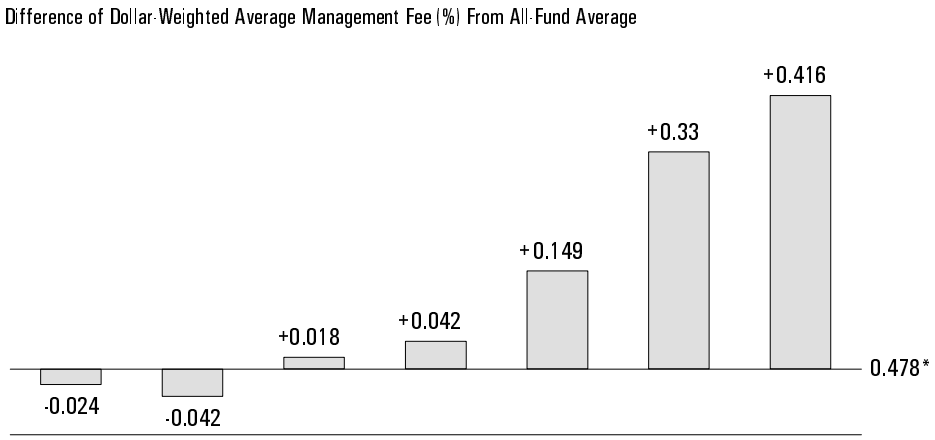
Chart 4

- Balanced funds with pre-'87 IPOs were the only ones with a dollar-weighted average management fee below the dollar-weighted average management fee for all balanced funds.

- '93/'94, the period with the median average ANA for the periods shown above, has the lowest dollar-weighted average management fee (0.547%) and the greatest number of funds (93) for any of the post-'87 periods; '97, the period with the second lowest dollar-weighted average management fee for any of the post-'87 periods (0.560%), included just seven funds.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(Equity Income Funds)



Equity Income Funds Total Net Assets ($ Millions) 6/30/98

$153,500.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	22	13	5	14	43	52	8
Average ANA***	2735.8	980.68	4123.42	567.1	530.05	340.2	75.61

*Dollar-weighted average management fee for all equity income funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all equity income funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

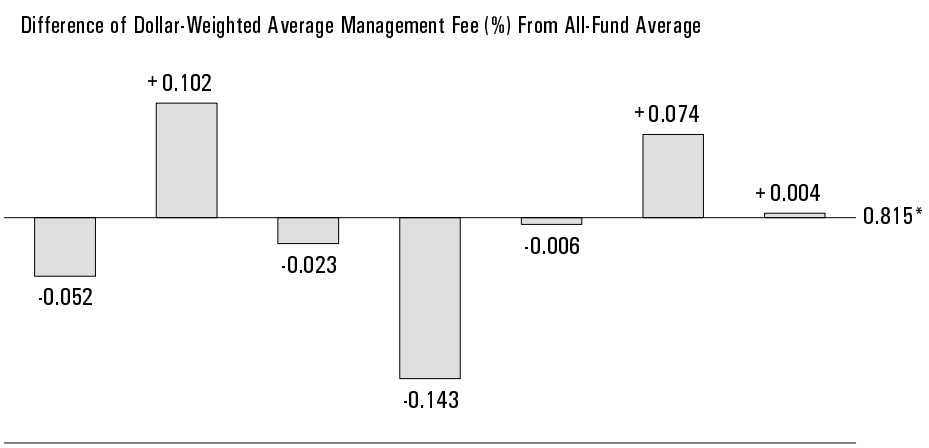
Chart 5

- The dollar-weighted average management fees of equity income funds follow the expected trend, with older funds maintaining lower dollar-weighted average management fees than newer funds.

- One would expect the dollar-weighted average management fee for all equity income funds to rise over time because of the distinctly higher management fees of funds with more recent IPOs, unless these funds realize sufficient asset growth to create economies of scale.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(Small-Cap Funds)



Small-Cap Funds
Total Net Assets
($ Millions)
6/30/98
$148,900.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	38	20	8	37	109	129	30
Average ANA***	1088.29	495.28	1060.55	351.82	303.7	173.51	105.3

*Dollar-weighted average management fee for all small-cap funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all small-cap funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

Chart 6

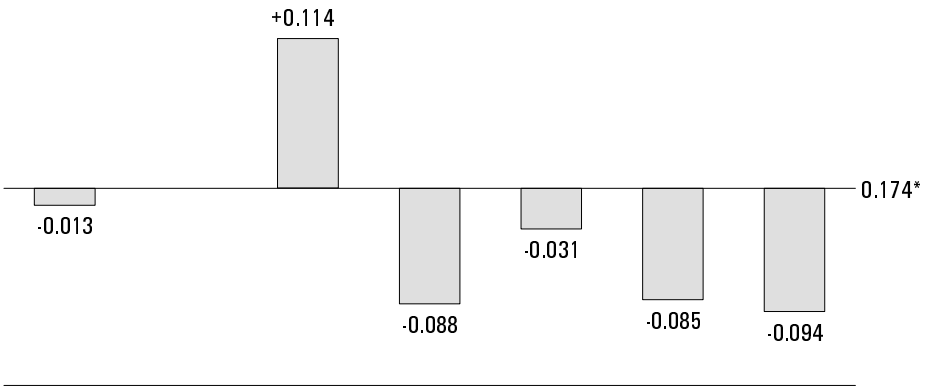
- The dollar-weighted average management fees for the periods shown above seem to show no distinct trend.

- Four periods shown above have dollar-weighted average management fees below the dollar-weighted average management fee for all small-cap funds, while three periods have dollar-weighted average management fees greater than the all-small-cap-fund average.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(S&P 500 Funds)

S&P 500 Funds
Total Net Assets
($ Millions)
6/30/98
$143,900.0



	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	1	0	6	10	7	13	6
Average ANA***	1843.9	---	950.87	689.8	631.91	354.53	188.1

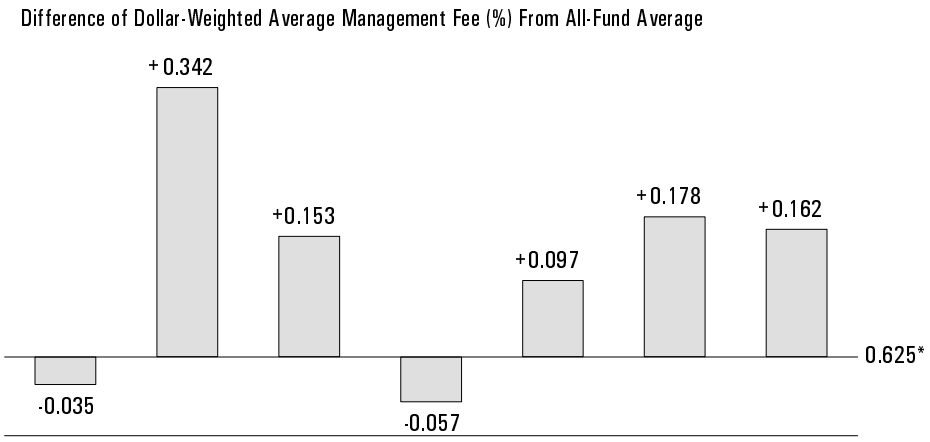
*Dollar-weighted average management fee for all S&P 500 funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all S&P 500 funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

Chart 7

- The dollar-weighted average management fee for S&P 500 funds is significantly influenced by Vanguard (the sole fund in the pre-'87 group).
- With nearly $40 billion in assets, the Vanguard Index 500 fund is nearly 5.5 times larger than the second largest fund (Fidelity U.S. Equity Index at $7.275 billion).
- In the '91/'92 period, the SSgA S&P 500 Index Fund (State Street proprietary fund), whose management fee is ten basis points and whose assets are the highest of the six funds, heavily influences the dollar-weighted average for this IPO window.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods (Capital Appreciation Funds)



Capital Appreciation Funds Total Net Assets ($ Millions) 6/30/98

$119,900.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	47	7	7	7	40	83	5
Average ANA***	1389.4	235.51	445.51	2383.82	766.46	158.6	95.58

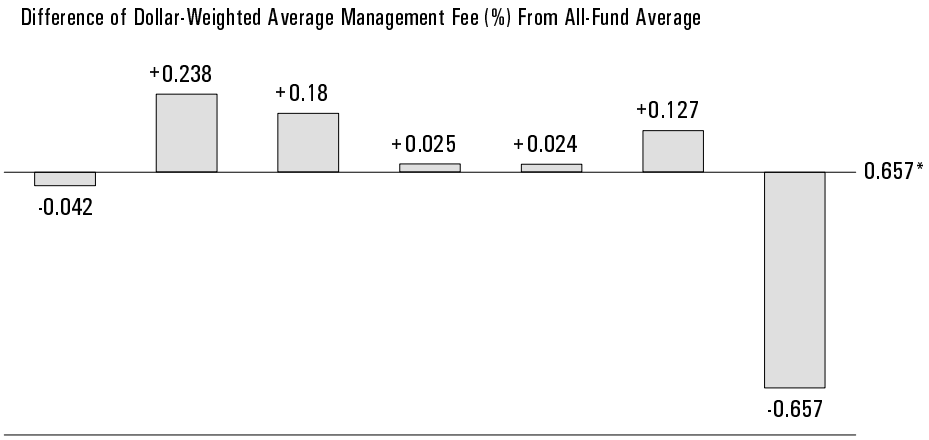
*Dollar-weighted average management fee for all capital appreciation funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all capital appreciation funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

Chart 8

- Only 21 capital appreciation funds were initially offered between 1987 and 1992, making comparisons more difficult. The '91/'92 period's dollar-weighted average management fee, for example, is skewed by the $14.5-billion-dollar Putnam Voyager Fund's management fee of 49.4 basis points (13.1 basis points lower than the dollar-weighted average management fee for all capital appreciation funds).

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(Global Funds)



Global Funds Total Net Assets ($ Millions) 6/30/98

$114,300.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	14	7	8	11	64	55	5
Average ANA***	3376.84	152.34	652.4	1299.84	378.97	670.01	7.82

*Dollar-weighted average management fee for all global funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all global funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

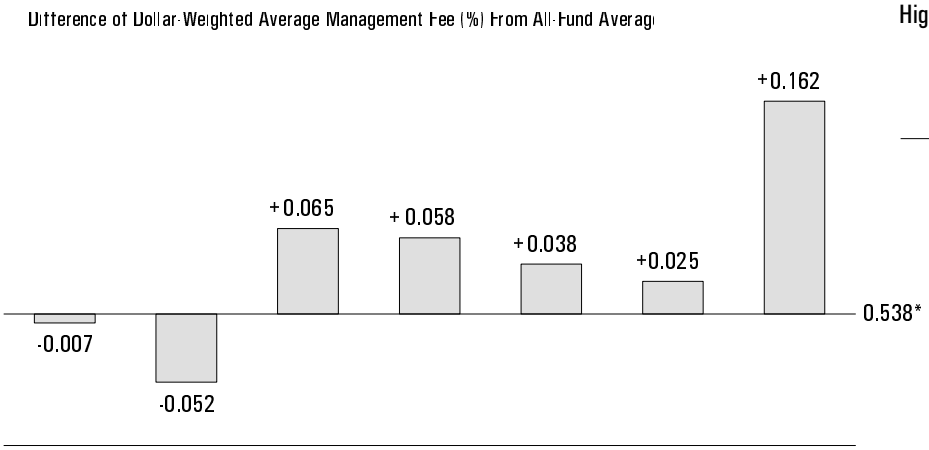
Chart 9

- Each of the five global funds with a '97 IPO waived/reimbursed fund expenses in excess of its contractual management fee, resulting in a much lower dollar-weighted average management fee than might normally be expected for that period.

- The relatively small average ANAs and the limited number of funds included in the '87/'88 and '89/'90 periods may contribute to the relatively high dollar-weighted average management fees for those periods; none of the three following periods has fewer funds or higher dollar-weighted average management fees.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(High Current Yield Funds)



High Current Yield Funds
Total Net Assets
($ Millions)
6/30/98

$106,653.9

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	40	12	4	5	46	47	11
Average ANA***	1328.63	1089.5	1558.08	790.96	1404.55	584.93	44.53

*Dollar-weighted average management fee for all high current yield funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all high current yield funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

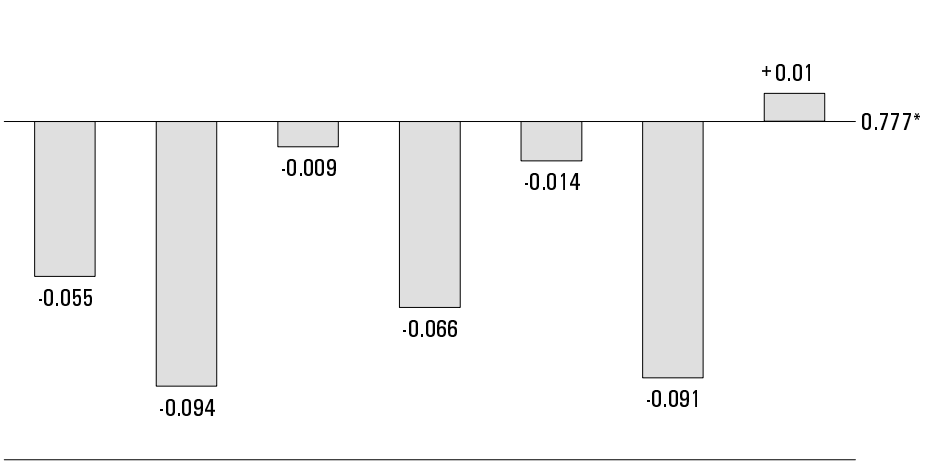
Chart 10

- High current yield funds maintain relatively stable dollar-weighted average management fees across IPO dates, with six of the seven periods shown reflecting dollar-weighted average management fees that vary less than seven basis points from the dollar-weighted average management fee for all high current yield funds.

- After declining steadily from '89/'90 to '95/96, the dollar-weighted average management fee for funds with 1997 IPOs is more than six times the dollar-weighted average management fee for funds initially offered in '95/'96 and 16.2 basis points higher than the dollar-weighted average management fee for all high current yield funds.

Management Fees—1997

All Funds and All Funds With Pre-1987 IPOs Vs. Subsequent Two-Year IPO Periods
(Mid-Cap Funds)



Mid-Cap Funds
Total Net Assets
($ Millions)
6/30/98
$95,700.0

	IPOs Pre-'87**	'87/'88	'89/'90	'91/'92	'93/'94	'95/'96	'97
Number of Funds	29	9	5	22	60	74	7
Average ANA***	1654.35	361.36	613.78	609.2	453.95	363.09	207.2

*Dollar-weighted average management fee for all mid-cap funds with 1997 fiscal year-ends.
**Dollar-weighted average management fee for all mid-cap funds with pre-1987 IPOs for 1997 fiscal year-ends.
***Average portfolio-level ANA ($Mil) for fiscal years ending in 1997 for funds with IPOs in the years shown above.

Chart 11

- While most funds' expenses are in line with the theory that newer, smaller funds are generally more expensive, this does not hold true for mid-cap funds¾three of the six post-'86 periods shown above, including '95/'96, reflect dollar-weighted average management fees lower than the dollar-weighted average for funds with pre-'87 IPOs.

- The dollar-weighted average management fee for funds with '97 IPOs is just one basis point higher than the dollar-weighted average for all mid-cap funds.